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Representing the ecosystem of Internet -Bharat Model

CCAOI Newsletter	November, 2015

WSIS+10 Draft Outcome Document

The draft outcome document of the United Nations General Assembly's Overall Review of the Implementation of WSIS Outcomes Draft Outcome Document was published on 4th November, 2015. This draft document will form the basis for textual negotiations during the informal consultation that are scheduled to take place from 19-20 and 24-25, November, 2015. This document is open for public comments till 17th November, 2015.

The whole document is divided into: Preamble (1-13); ICT for development (14-20) which includes, bridging the digital divide (21-26); enabling environment (27-29); financial mechanisms (30-36); Human rights in the information society (37-43); Building Confidence and Security in the use of ICTs (44-49); Internet governance (50-54) including enhanced cooperation (55-56); Follow up and review (57-62).

Some of the highlights of the draft include suggesting that the international management of Internet should be multilateral, transparent and democratic, with the full involvement of governments, private sector, civil society and international organizations. It also calls for an ongoing evaluation of new innovative financing options in the annual review of WSIS outcomes, while accepting challenges in implementing the Digital Solidarity Fund. The draft calls for extending the IGF mandate for another 10 years and suggests continuing the annual reports on the implementation of WSIS outcomes through the Commission on Science and Technology for Development (CSTD) and the need for close connection to the 2030 Agenda for Sustainable Development. The document also proposes to hold a High Level Meeting on the Information Society in 2025.

The draft outcome document can be viewed from the following link: http://workspace.unpan.org/sites/Internet/Documents/UNPAN95572.pdf

It may be noted that the General Assembly High-level Meeting on the overall review of the implementation of the outcomes of the World Summit on the Information Society will take place on 15-16 December 2015 at the UN Headquarters in New York.

Update on IGF 2015

The 10th Internet Governance Forum was held from the 10th -13th November, 2015 at Joao Pessoa, Brazil. This year Cyber security, privacy and online human rights dominated the discussions.

Topics which were discussed under **security** include, enhancing cyber security and building Digital Trust, surveillance and censorship, encryption. There were workshops and discussion related to the **safety of children online,** the various risks, best practices followed, the role of all stakeholders in protecting children online, the issue of child sexual abuse material (CSAM), how advanced technologies and cooperation among stakeholders will enable authorities, especially law enforcement, to better combat CSAM, etc.

The discussion on **privacy and security** included issues on how to strike a balance between privacy and security, whether privacy should be protected on a national or international level, privacy v/s transparency. The topic of Freedom of expression and access to information, internet economy and development was also discussed.

There was a discussion on the **2030 Agenda for Sustainable Development and access to internet** where speakers called for an open, free, and neutral Internet would empower sustainable development. Access to the Internet was discussed as the main operational issue of sustainable development and the Internet. There was a discussion on Small Island Developing States, which

called for innovative solutions for access to typically geographically remote small island states. They also discussed the possible use of zero rating services and the impact on small markets.

The discussions on **internet infrastructure** covered, IXPs, spectrum, interconnection, IPv6 and protection of key internet resources. Content policy, digital legacies and right to be forgotten were also discussed. There was a discussion on access and disabilities where awareness raising was found to be critical.

IANA transition and ICANN accountability were also discussed where the stakeholders shared the concerns over jurisdiction, the need for more inclusion and diversity in ICANNs processes.

Zero rating was the hot topic at IGF 2015. **While critics of Zero Rating argued that it creates a walled garden, none of the panel members at the discussion were able to provide any evidence to CCAOI's query of whether there was any empirical data to support this claim.** On the argument of few participants that it is better to have no access rather than access to some services, others participants, including CCAOI questioned how the global, well resourced citizens, could afford such apathy towards the unconnected and prevent them from availing the benefits they the connected few continue to enjoy, thereby create an era of digital apartheid.

CCAOI also shared that in developing countries such as India, apart from the technical limitation, the challenges lie in affordability and adoption. While free access can help those who would otherwise have no means to avail the benefits of the Internet, where adoption is a challenge, there is a need for stimulators and incentives in every form including free services including Free internet learning programs, to improve the situation. Zero rating is one of the ways to increase internet access and adoption and that our approach should not be to shut down Zero rating services but to improve them. In case any competitive issue comes up, it should go to Competition Commission. It is time such elite interferences with meager fortunes of the poor are brought to an end and treated as crimes against humanity.

(Source: IGF website; Diplo Foundation Report)

Update on the ICANN Accountability

The **CCWG Accountability** has released their third draft proposal on work stream 1 for public comments on ICANN Accountability. The present draft is open for public comments till 21st December, 2015. The present draft contains:

- A revised Mission statement for the ICANN Bylaws, which clarifies but does not change the mission
- An enhanced Independent Review Process and redress process with a broader scope and the power to ensure ICANN stays within its revised Mission
- New specific powers for the ICANN community that can be enforced when the usual methods of discussion and dialogue have not effectively built consensus including the powers to reject ICANN Budgets, Operating Plans or Strategic Plans, reject changes to ICANN's Bylaws, approve changes to new Fundamental Bylaws, remove an individual ICANN Director from the Board, recall the entire ICANN Board
- An additional new power that gives the community a say in decisions about the IANA Function Reviews and any separation of the IANA Names Functions

However , all of these community powers can only be exercised after extensive community discussions and debates through processes of engagement and escalation. The process of escalation provides many opportunities for the resolution of disagreements between the parties before formal action is required.

The accountability elements shared will be supported through:

- Additions to the ICANN Bylaws to create an Empowered Community that is based on a simple legal vehicle that will act on the instructions of ICANN stakeholder groups to exercise the Community Powers. The Empowered Community is granted the status of a Designator (a recognized role in law) and has the standing to enforce the Community Powers if needed.

Core elements of ICANN's governing documents (the Articles and Bylaws) being categorized as Fundamental Bylaws that can only be changed with agreement between the ICANN community and the ICANN Board.

In addition, further proposed changes include:

- A recognition of ICANN's respect for Human Rights

- Incorporation of ICANN's commitments under the 2009 Affirmation of Commitments with the United States Department of Commerce into the Bylaws, where appropriate

- Improved accountability and diversity for ICANN's Supporting Organizations and Advisory Committees

- A commitment to discuss additional accountability improvements and broader accountability enhancements in 2016, following implementation of this core set of accountability improvements

- To develop these recommendations to improve ICANN's accountability, the Working Group:

- Relied on suggestions and proposals generated inside the Working Group and by the broader Internet multistakeholder community

- Conducted public comment periods to gather feedback on earlier drafts and discussed iterations of its recommendations across the world at ICANN meetings and through online webinars

- Rigorously "stress tested" ICANN's current and proposed accountability mechanisms to test their strength against problematic scenarios the organization could potentially face

Engaged two external law firms to ensure the legal reliability of the proposed accountability enhancements

- Made the minimum enhancements to ICANN's accountability necessary to meet the baseline requirements of the community, as required for the IANA Stewardship Transition

- Met the requirements of the group that developed the IANA Stewardship Transition proposal for the Domain Names community

- Met the requirements of the U.S. National Telecommunications and Information Agency for the IANA Stewardship Transition

Each central recommendation has a corresponding appendix with additional detail including a summary, CCWG-Accountability Recommendations, Detailed Explanation of Recommendations, Changes from the 'Second Draft Proposal on Work Stream 1 Recommendations,' Stress Tests Related to this Recommendation, how does this meet the CWG-Stewardship Requirements, and how does this address NTIA Criteria. We look forward to your thoughts and feedback on our Third Draft Proposal on Enhancing ICANN Accountability.

The draft can be viewed from the following link https://www.icann.org/en/system/files/files/draft-ccwg-accountability-proposal-work-stream-1-recs-30nov15-en.pdf

ITU releases annual global data & ICT Development Index country rankings

The annual ITU Report on Measuring the Information Society reveals that 43.4% of the global population (3.2 billion people) are now online and mobile subscription is around 95% (almost 7.1 billion worldwide).

The report notes that all 167 economies included in the ITU's ICT Development Index (IDI) improved their IDI values between 2010 and 2015 – meaning that levels of information and communication technology (ICT) access, use and skills continue to improve all around the world.

The Republic of Korea is ranked at the top of ITU's ICT Development Index (IDI), followed by Denmark and Iceland, in second and third place. India has been ranked 131st in terms of ICT Development Index (IDI)

In the Asia-Pacific region in terms of ICT development, six economies including the Republic of Korea, Hong Kong (China) and Japan have high IDI rankings, however, India, Pakistan, Bangladesh and Afghanistan and 5 more countries are considered the least connected countries.

There was an improvement in IDI rankings of Thailand, Mongolia and Bhutan, which rose by 18, 13 and 9 places, respectively, in the global rankings during the period.

Chart : IDI values, Asia and the Pacific, 2015
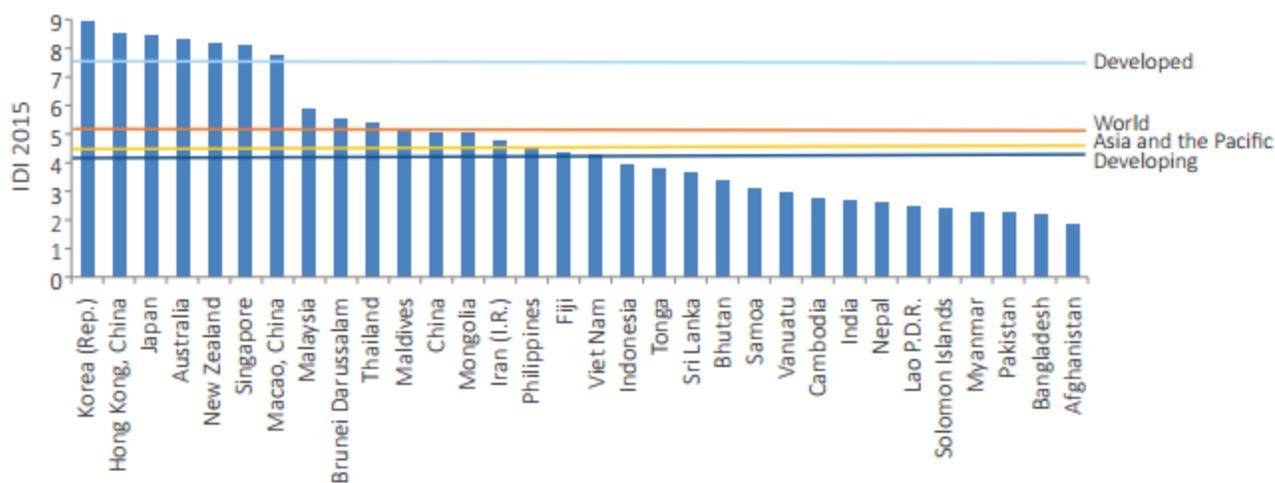
Source: ITU.

More people Online but growth slows

By the end of this year, 46% of households globally will have Internet access at home, up from 44% last year and just 30% five years ago, in 2010. In the developed world, 81.3% of households now have home Internet access, compared to 34.1% in the developing world, and just 6.7% in the 48 UN-designated Least Developed Countries (LDCs).

Latest data show that growth in Internet use has slowed down, however, posting 6.9% global growth in 2015, after 7.4% growth in 2014. Nonetheless, the number of Internet users in developing countries has almost doubled in the past five years (2010-2015), with two thirds of all people online now living in the developing world.

Growing Divide

The report observes the widening gap in IDI values between nations, over past five years. In the LDCs, the IDI grew less compared to other developing countries and LDCs are falling behind in particular in the IDI 'use' sub-index, which could impact on their ability to derive development gains from ICTs.

Fastest growth continues to be seen in mobile broadband, with the number of mobile-broadband subscriptions worldwide having grown more than four-fold in five years, from 0.8 billion in 2010 to an estimated 3.5 billion

in 2015. The number of fixed-broadband subscriptions has risen much more slowly, to an estimated 0.8 billion today.

Mobile-network coverage: reaching the last half billion
While over 95% of the global population is now covered by mobile-cellular services, there are still an estimated 350 million people worldwide still to be connected. Further, while 89% of the world's urban population is now covered by a 3G network, only 29% of the world's 3.4 billion people living in rural areas benefit from 3G coverage.

Predictions up to 2020
The report notes that the proportion of households projected to have Internet access in 2020 will reach 56% but only 53% of the global population will be online in 2020. Therefore more action will also be needed to ensure that targets for growth and inclusiveness are not missed in developing countries, and in particular in LDCs. Further the ITU estimates that only 45% of households in developing countries and 11% of LDC households will have Internet access by 2020.

More affordable – but not universally affordable
The report notes that the price of mobile-cellular services continues to fall across the world. In LDCs, the mobile-cellular price basket continued to fall, coming down to 14% of gross national income per capita (GNI p.c.) by the end of 2014, compared to 29% in 2008.
The greatest decreases over the past year have been in mobile-broadband prices, which have made the service on average between 20% and 30% more affordable worldwide.
In terms of Mobile broadband prices, postpaid handsets based (500MB data) in 2014 Indian economy was ranked 97 i.e. 2.51 as % of GNI p.c, while in terms of prepaid handsets based (500MB data) the country was ranked 88 i.e. 2.48 as % of GNI p.c.

In terms of Mobile-broadband prices, postpaid computer-based 1GB, Indian economy was ranked 89 which is 3.13% of GNI p.c. while the Mobile-broadband prices, prepaid computer-based, 1GB, ranking was 80, 3.12% of GNI p.c.
By early 2015, 111 economies (out of 160 with available data), including all of the world's developed countries and 67 developing countries, had achieved the Broadband Commission for Digital Development's target that the cost of broadband services should be no more than 5% of average monthly income. **However, 22 developing countries still had broadband prices which corresponded to more than 20% of GNI p.c.**

The report also notes that while tremendous progress has been in made in terms of mobile-broadband affordability, fixed-broadband prices increased between 2013 and 2014, after falling consistently for a number of years. In the LDCs in particular, fixed-broadband services remain unaffordable, and most of the countries ranked at the bottom of the fixed-broadband basket are LDCs. The 2014 average fixed-broadband basket corresponded to 98% of GNI p.c. in LDCs, up from 70% a year before, a sharp increase that will not improve the already very low uptake of fixed broadband in the world's poorest countries.

The report can be viewed from following link: http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf

Other Security Components of Smart City

In our last edition we had discussed on Security Challenges of Smart Cities. In this edition we will explore the other security components that need to be considered while designing a smart city.

Since the smart city comprises of complex physical and cyber systems, there is a need for a comprehensive and holistic security framework.

Smart Cities comprise of heterogeneous networks and devices, having multiple access and data entry points, it is important to create synergies between various systems by having a platform to consolidate, analyze, correlate, optimize and visualize data available in different formats.

For better information flow, it would be pertinent to integrate the smart city infrastructure management system across multiple cities/states, by adopting standardized data models or structures for all services, such that data exported by one platform can be understood, ingested, and correlated by the other platform. Also a unified approach for incident management, which is operational 24*7 should be adopted.

Few of the Cyber Security Protection measures which should be adopted in Smart Cities, include, securing the infrastructure and the transport layer to ensure no unauthorized tapping of the fiber/power line infrastructure., the use of encrypted applications, securing the sensor networks, securing the Data Centers, securing the processes and applications, going through a security assessment to confirm compliance to the security policies of the CISO, etc. Also, periodic security assessments of vulnerability, including penetration testing of the infrastructure to plug any new found vulnerabilities and incorporate learnings from security operations should be implemented. There should also be a clear strategy for data backup, archival and recovery, along the duration of Data retention.

The overall governance of backup, archival and recovery, in smart cities should adopt a holistic approach covering policy, process, technology and people skills. Also crucial components such as interoperability and naming service standards should be followed.

Since, standards help to address issues at different levels (strategic, operational and technical) ranging from decision making to interoperability of particular devices, it is important to decide what standards should be followed in the different layers of the Smart City.

To summarize, the overall security framework should be a balance between the ability to meet societal and market needs, safe and at par with global standards, including:

- a risk based approach to converge the physical and cyber security along with safety of people,
- minimum ICT security baselines for hardening,
- mechanisms for sharing and coordinating city threat and vulnerability information,
- building city emergency, incident and crisis response capabilities,
- creation of public awareness, education, and workforce training in converged security to ensure resilience can be achieved, and
- Cooperation between the various stakeholder in the smart cities such as private, public, people , law enforcement, academia, etc. Attempt should be made to create a model which encourages inclusiveness of all stakeholders, providing opportunities to stakeholders as well as citizens to co-create ground.

DeitY and NIXI organizes a Round Table Discussion on New gTLD Program

Department of Electronics & IT (DeitY) and National Internet Exchange of India (NIXI) held a roundtable discussion on Round Table discussion on New gTLD Program Implementation Review Draft Report and New gTLD Auction Proceeds Discussion Paper, on the 6th of November 2015. The event was moderated by Director, Mr. Rahul Gosain.

The aim of the roundtable was to seek inputs from stakeholders on the gTLD program implementation, the present issues and what other issues need to be addressed and if there are any India centric issues which should be proposed.

The meeting was attended by Civil Society, Industry Associations, Academia, Private sector experts as well as Government functionaries. CCAOI too participated in the round table.

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<div style="background-color:#C00000; color:white; text-align:center; font-weight:bold;">Upcoming Events and Opportunities</div>

- Department of Electronics and Information Technology (DeitY) is organizing a **Round Table discussion on Use of 3-letter Country Code as Top Level Domain (ccTLD** on 8th December 2015, 11:00 am to 12:00pm in room no. 1007, Electronics Niketan, 6 CGO Complex, Lodhi road, New Delhi

- Department of Electronics and Information Technology (DeitY) is organizing a **Round Table discussion on CCWG Accountablility 3rd Draft Proposal** on 10th December 2015, 11:00 am to 12:00pm in room no. 1007, Electronics Niketan, 6 CGO Complex, Lodhi road, New Delhi

- The **High-level meeting of the General Assembly on WSIS+10 review**, will be held at United Nations Headquarters in New York on 15-16 December 2015.

- The Asia Pacific Regional Internet Conference on Operational Technologies (APRICOT) which would be held from 15th February - 26th March 2016, Auckland, New Zealand is now **seeking contributions for Presentations and Tutorials**. The last date for submission is 26th January, 2016. For further details visit: http://papers.apricot.net/user/login.php?event=34

- The **24th Convergence India 2016** will be held from the 20th -22nd January 2016, at Pragati Maidan, New Delhi. To register, visit http://www.convergenceindia.org/

- The **Asia Pacific Regional Internet Governance Forum (APrIGF)** is now **seeking proposals for Pre-Events/Workshop with the overarching theme "A New Internet Era".** The APrIGF event would be held from 27 - 29 July 2016 at National Taiwan University of Science and Technology (NTUST) with pre-events on Day 0 (26 July) and a new 2-day Asia Pacific School of Internet Governance (APSIG) before. The online submission form is available at http://2016.aprigf.asia/program/ and the Workshop Proposal Submission Deadline is 2nd 2016. For more details visit http://2016.aprigf.asia/program/themes/.